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**DEPARTMENT OF DEFENSE** 

Office of the Secretary

(Transmittal Nos. 13-05)

36(b)(1) Arms Sales Notification

**AGENCY:** Department of Defense, Defense Security Cooperation Agency.

**ACTION:** Notice.

**SUMMARY:** The Department of Defense is publishing the unclassified text of a section 36(b)(1) arms sales notification. This is published to fulfill the requirements of section 155 of Public Law 104-164 dated July 21, 1996.

FOR FURTHER INFORMATION CONTACT: Ms. B. English, DSCA/DBO/CFM, (703) 601-3740.

The following is a copy of a letter to the Speaker of the House of Representatives,

Transmittals 13-05 with attached transmittal, policy justification, and Sensitivity of Technology.

Dated: March 4, 2013.

Aaron Siegel, Alternate OSD Federal Register Liaison Officer, Department of Defense.



# DEFENSE SECURITY COOPERATION AGENCY 201 1213 STREET SOUTH, STE 203 ARLINGTON VA 22202-5408

FEB 27 2013

The Honorable John A. Boehner Speaker of the House U.S. House of Representatives Washington, DC 20515

Dear Mr. Speaker:

Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 13-05, concerning the Department of the Navy's proposed Letter(s) of Offer and Acceptance to Australia for defense articles and services estimated to cost \$3.7 billion. After this letter is delivered to your office, we plan to issue a press statement to notify the public of this proposed sale.

Sincerely,

Fv2 William E. Landay III Vice Admiral, USN

Director

Enclosures:

1. Transmittal

2. Policy Justification

3. Sensitivity of Technology



#### Transmittal No. 13-05

Notice of Proposed Issuance of Letter of Offer Pursuant to Section 36(b)(1) of the Arms Export Control Act, as amended

(i) <u>Prospective Purchaser</u>: Commonwealth of Australia

(ii) Total Estimated Value:

Major Defense Equipment\* \$2.6 billion
Other \$1.1 billion
TOTAL \$3.7 billion

- (iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase: up to 12 F/A-18E/F Super Hornet aircraft, 12 EA-18G Growler aircraft, 54 F414-GE-402 engines (48 installed and 6 spares), 2 engine inlet devices, 35 AN/APG-79 Radar Systems, 70 AN/USO-140 Multifunctional Informational Distribution System Low Volume Terminals (MIDS-LVT) or RT-1957(C)/USQ-190(V) Joint Tactical Radio Systems, 40 AN/ALQ-214 Integrated Countermeasures Systems, 24 AN/ALR-67(V)3 Electronic Warfare Countermeasures Receiving Sets, 72 LAU-127 Guided Missile Launchers, 15 M61A2 Vulcan Cannons, 32 AN/AVS-9 Night Vision Goggles or Night Vision Cueing Device Systems, 40 AN/APX-111 Combined Interrogator Transponders, 80 AN/ARC-210/RT-1990A(C) Communication Systems, 100 Digital Management Devices with KG-60's, 36 Accurate Navigation Systems, 30 AN/AYK-29(V) Distributed Targeting Systems (DTS), 4 AN/PYQ-21 DTS Mission Planning Transit Cases, 24 AN/ASQ-228 Advance Targeting Forward Looking Infrared (ATFLIR) Pods, 40 AN/PYQ-10 Simple Key Loaders (SKL), 80 KIV-78 Mode 4/5 Modules, 48 COMSEC Management Workstations (CMWS), 24 AN/ALE-47 Electronic Warfare Countermeasures Systems, 80 Joint Helmet Mounted Cueing Systems (JHMCS), and 400 AN/ALE-55 Fiber Optic Towed Decoys. Also included are system integration and testing, tools and test equipment, support equipment, spare and repair parts, publications and technical documents, personnel training and training equipment, aircraft ferry and refueling support, U.S. Government and contractor technical assistance, and other related elements of logistics and program support.
- (iv) Military Department: Navy (SCI)
- (v) Prior Related Cases, if any:

FMS Case SAF-\$2.2B-02May07 FMS case GQY-\$358M-6May11 FMS case LEN-\$992M-13September12

- (vi) Sales Commission, Fee, etc., Paid, Offered, or Agreed to be Paid: None
- (vii) <u>Sensitivity of Technology Contained in the Defense Article or Defense</u> Services Proposed to be Sold: None

- (viii) Date Report Delivered to Congress: 27 February 2013
- \* as defined in Section 47(6) of the Arms Export Control Act.

#### POLICY JUSTIFICATION

### Australia – F/A-18E/F Super Hornet and EA-18G Growler Aircraft

The Government of Australia has requested a possible sale of up to 12 F/A-18E/F Super Hornet aircraft, 12 EA-18G Growler aircraft, 54 F414-GE-402 engines (48 installed and 6 spares) 2 engine inlet devices, 35 AN/APG-79 Radar Systems, 70 AN/USQ-140 Multifunctional Informational Distribution System Low Volume Terminals (MIDS-LVT) or RT-1957(C)/USQ-190(V) Joint Tactical Radio Systems, 40 AN/ALQ-214 Integrated Countermeasures Systems, 24 AN/ALR-67(V)3 Electronic Warfare Countermeasures Receiving Sets, 72 LAU-127 Guided Missile Launchers, 15 M61A2 Vulcan Cannons, 32 AN/AVS-9 Night Vision Goggles or Night Vision Cueing Device System, 40 AN/APX-111 Combined Interrogator Transponders, 80 AN/ARC-210/RT-1990A(C) Communication Systems, 100 Digital Management Devices with KG-60's, 36 Accurate Navigation Systems, 30 AN/AYK-29(V) Distributed Targeting Systems (DTS), 4 AN/PYQ-21 DTS Mission Planning Transit Cases, 24 AN/ASQ-228 Advance Targeting Forward Looking Infrared (ATFLIR) Pods, 40 AN/PYO-10 Simple Key Loaders (SKL), 80 KIV-78 Mode 4/5 Module, 48 COMSEC Management Workstations (CMWS), 24 AN/ALE-47 Electronic Warfare Countermeasures Systems, 80 Joint Helmet Mounted Cueing Systems (JHMCS), and 400 AN/ALE-55 Fiber Optic Towed Decoys. Also included are system integration and testing, tools and test equipment, support equipment, spare and repair parts, publications and technical documents, personnel training and training equipment, aircraft ferry and refueling support, U.S. Government and contractor technical assistance, and other related elements of logistics and program support. The estimated cost is \$3.7 billion.

Australia is an important ally in the Western Pacific that contributes significantly to ensuring peace and economic stability in the region. Australia's efforts in peacekeeping and humanitarian operations have made a significant impact on regional political and economic stability and have served U.S. national security interests. This proposed sale is consistent with those objectives and facilitates burden sharing with our allies.

The proposed sale will improve Australia's capability in current and future coalition efforts. Australia will use the enhanced capability as a deterrent to regional threats and to strengthen its homeland defense. Australia will have no difficulty absorbing these additional aircraft into its armed forces.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

The prime contractor will be The Boeing Corporation in St. Louis, Missouri; General Electric Aircraft Engines in Lynn, Massachusetts; Data Link Solutions in Chesterfield, Missouri; BAE Systems in Rockville, Maryland; Northrop Grumman Corporation in Falls Church, VA; Raytheon Corporation in Waltham, MA; and Visions Systems International in San Jose, California. There are no known offset agreements proposed in connection with this potential sale.

Implementation of this proposed sale may require the assignment of additional U.S. Government or contractor representatives to Australia.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

Transmittal No. 13-05

Notice of Proposed Issuance of Letter of Offer Pursuant to Section 36(b)(1) of the Arms Export Control Act

> Annex Item No. vii

## (vii) Sensitivity of Technology

- 1. The F/A-18E/F Super Hornet is a single- and two-seat, twin engine, multimission fighter/attack aircraft that can operate from either aircraft carriers or land bases. The F/A-18 fills a variety of roles: air superiority, fighter escort, suppression of enemy air defenses, reconnaissance, forward air control, close and deep air support, and day and night strike missions. The F/A-18E/F Weapon System is considered Secret.
- 2. The EA-18G Growler is a two-seat, twin engine, multi-mission Airborne Electronic Attack (AEA) aircraft that can operate from either aircraft carriers or land bases. It provides a capability to detect, identify, locate, and suppress hostile emitters. The EA-18G provides organic accurate emitter targeting for employment of onboard suppression weapons, such as High-Speed Anti-Radiation Missile (HARM). The EA-18G Weapon System is considered Secret.
- 3. The AN/APG-79 Active Electronically Scanned Array Radar System is classified Secret. The radar provides the F/A-18 aircraft with all-weather, multi-mission capability for performing air-to-air and air-to-ground targeting and attack. Air to-air modes provide the capability for all-aspect target detection, long-range search and track, automatic target acquisition, and tracking of multiple targets. Air-to-surface attack modes provide high-resolution ground mapping navigation, weapon delivery, and sensor cueing. The system component hardware (Antenna, Transmitter, Radar Data Processor, and Power Supply) is Unclassified. The Receiver-Exciter hardware is Confidential. The radar Operational Flight Program (OFP) is classified Secret. Documentation provided with the AN/APG-79 radar set is classified Secret.
- 4. The AN/ALR-67(V)3 Electric Warfare Countermeasures Receiving Set is classified Confidential. The AN/ALR-67(V)3 provides the F/A-18F aircrew with radar threat warnings by detecting and evaluating friendly and hostile radar frequency threat emitters and providing identification and status information about the emitters to onboard Electronic Warfare (EW) equipment and the aircrew. The OFP and User Data Files

(UDF) used in the AN/ALR-67(V)3 are classified Secret. Those software programs contain threat parametric data used to identify and establish priority of detected radar emitters.

- 5. The AN/ALE-47 Countermeasures Dispensing Systems is classified Secret. The AN/ALE-47 is a threat-adaptive dispensing system that dispenses chaff, flares, and expendable jammers for self-protection against airborne and ground-based Radio Frequency and Infrared threats. The AN/ALE-47 Programmer is classified Confidential. The OFP and Mission Data Files used in the AN/ALE-47 are classified Secret. Those software programs contain algorithms used to calculate the best defense against specific threats.
- 6. The APX-111 Combined Interrogator/Transponder (CIT) with the Conformal Antenna System (CAS) is classified Secret. The CIT is a complete MARK-XII identification system compatible with Identification Friend or Foe (IFF) Modes 1, 2, 3/A, C, 4, and 5 (secure). A single slide-in module that can be customized to the unique cryptographic functions for a specific country provides the systems secure mode capabilities. The Mode S Beacon System is a combined data link and Secondary Surveillance Radar (SSR) system that was standardized in 1985 by the International Civil Aviation Organization (ICAO). Mode S provides air surveillance using a data link with a permanent unique aircraft address.
- 7. The Joint Helmet Mounted Cueing System (JHMCS) is a modified HGU-55/P helmet that incorporates a visor-projected Heads-Up Display (HUD) to cue weapons and aircraft sensors to air and ground targets. In close combat, a pilot must currently align the aircraft to shoot at a target. JHMCS allows the pilot to simply look at a target to shoot. This system projects visual targeting and aircraft performance information on the back of the helmet's visor, enabling the pilot to monitor this information without interrupting his field of view through the cockpit canopy, the system uses a magnetic transmitter unit fixed to the pilot's seat and a magnetic field probe mounted on the helmet to define helmet pointing positioning. A Helmet Vehicle Interface (HVI) interacts with the aircraft system bus to provide signal generation for the helmet display. This provides significant improvement for close combat targeting and engagement. Hardware is Unclassified; technical data and documents are classified up to Secret.
- 8. The AN/AVS-9 Night Vision Goggles provide imagery sufficient for an aviator to complete night time missions down to starlight and extreme low light conditions. The AN/AVS-9 is designed to satisfy the F/A-18 mission requirements for covert night combat, engagement, and support. The third generation light amplification tubes provide a high-performance, image-intensification system for optimized F/A-18 night flying at terrain-masking altitudes. The AN/AVS-9 night vision goggles are classified as Unclassified but with restrictions on release of technologies.
- 9. The AN/USQ-140 Multifunctional Informational Distribution System (MIDS) Low Volume Terminal (LVT) is classified Confidential. The MIDS LVT is a secure data and voice communication network using the Link-16 architecture. The

systems provides enhanced situational awareness, positive identification of participants within the network, secure fighter-to-fighter connectivity, and secure voice capability and ARN-118 TACAN functionality. It provides three major functions: Air Control, Wide Area Surveillance, and Fighter-to-Fighter. The MIDS LVT can be used to transfer data in Air to-Air, Air-to-Surface, and Air-to-Ground scenarios. The MIDS enhanced Interference Blanking Unit (EIBU) provides validation and verification of equipment and concept. EIBU enhances input/output signal capacity of the MIDS LVT and addresses parts obsolescence.

- 10. The RT-1957(C)/USQ-190(V) Multifunctional Informational Distribution System (MIDS) Joint Tactical Radio System (JTRS) is classified Confidential. It is a 4-channel radio designed to run the complex Link 16 waveform and up to three additional communication protocols, including Airborne Networking Waveform (ANW). The terminal can host and provide the necessary computer processing to run routing and platform specific applications.
- 11. The ALE-55 Fiber Optic Towed Decoys is radio frequency countermeasure designed to protect an aircraft from radar guided missiles. It consists of an aircraft-towed decoy and onboard electronics. It works together with the aircraft's electronic warfare system to provide radar jamming. In addition, it can also be used in a backup mode as a signal repeater, which allows it to lure incoming missiles away from their actual target.
- 12. The AN/ARC-210, RT-1990A(C) Communication System has been designed to better meet software defined radio tenets, and architectures, provides superior performance in the transfer of networked and point to point data and voice imagery.
- 13. The Accurate Navigation Systems (ANAV) with country specific Selective Availability Anti-Spoofing Module (SASSM) including Advance Digital Antenna Production/Antenna Electronics (ADAP/AE) and Conformal-Controlled Reception Patterned Antenna (C-CRPA) provide full accuracy and P/Y-Code GPS. The ANAV can accommodate many interfaces to various sensors through a number of available options including Selective Availability and Anti-spoofing Module (SASSM), and can be integrated with existing Inertial Navigation System (INS) and Doppler systems. The system also incorporates Air Navigation Warfare (NAVWAR) protection designed to counter GPS Electronic Warfare threats due to intentional and unintentional interference by providing the warfighter continued access to GPS through the use of Anti-jam (AJ) Antenna Systems consisting of the Conformal Controlled Reception Pattern Antenna, (C-CRPA), and the Advanced Digital Antenna Production/Antenna Electronics, (ADAP/AE).
- 14. The AN/AYK-29(V) Distributed Targeting Systems (DTS) and AN/PYQ-21 DTS Mission Planning Transit Case uses onboard hardware and software processing to produce precise targeting solutions for Super Hornet aircrews. The system compares synthetic-aperture radar (SAR) maps from the aircraft's active-array radar with stored geo-registered SAR maps and generates precise target coordinates for GPS-guided

weapons. DTS enhances Super Hornet aircrews' situational awareness when engaging air-to-ground targets.

- 15. The AN/ALQ-214(V)4 Jammer is the next generation integrated countermeasures system that blends sensitive receivers and active countermeasures to form an electronic shield for the F/A-18 fighter aircraft. The RF countermeasure system responds to threats autonomously with a specific series of measures designed to protect the aircraft from detection and engages any fired threats to the aircraft, to ensure mission success.
- 16. The AN/ASQ-228 Advance Targeting Forward Looking Infrared (ATFLIR) Pod is a multi-sensor, electro-optical targeting pod incorporating infrared, low-light television camera, laser rangefinder/target designator, and laser spot tracker developed and manufactured by Raytheon. It is used to provide navigation and targeting for military aircraft in adverse weather and using precision-guided weapons.
- 17. The LAU-127 Guided Missile Launchers is a rail launcher designed to carry and launch AMRAAM. It provides the electrical and mechanical interface between the missile and launch aircraft as well as the two-way data transfer between missile and cockpit controls and displays to support preflight orientation and control circuits to prepare and launch the missile. The launcher will also be capable of carrying and launching the AIM-9L/M SIDEWINDER missile.
- 18. If a technologically advanced adversary were to obtain knowledge of the specific hardware and software elements, the information could be used to develop countermeasures that might reduce weapon system effectiveness or be used in the development of a system with similar or advanced capabilities.

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